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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,622	08/28/2003	Satoshi Inami	2003_1218A	5298

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WENDEROTH, LIND & PONACK, L.L.P.
2033 K STREET N. W.
SUITE 800
WASHINGTON, DC 20006-1021

EXAMINER	
WEINTROP, ADAM S	
ART UNIT	PAPER NUMBER
2109	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/649,622	INAMI ET AL.	
	Examiner	Art Unit	
	Adam S. Weintrop	2109	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/20/06, 8/28/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. **Claims 1-9** are objected to because of the following informalities:

Regarding **claim 1**, the term "data" in lines 6, 16, 20, and 7 and 8 on page 43, should be replaced with – stream data – to establish proper antecedent basis. The term "the processed data" of line 7 lacks antecedent basis and should be replaced with – processed data --. The term "the received data" on line 11 should be replaced with – received data –. The terms "a data read" and "a data write" on line 23 should be replaced with – the data read – and – the data write --. The phrase "a change of the subject of processing" on line 1 on page 43 has already been defined and should be replaced with – the change of the subject of processing --.

Regarding **claims 2**, the term "the data stored" on line 21 should be replaced with – the stream data stored --.

Regarding **claims 3**, the term "the data stored" on line 11 should be replaced with – the stream data stored --.

Regarding **claim 4**, the term "data" on line 7 should be replaced with – stream data – to establish proper antecedent basis.

Appropriate correction is required.

Regarding **claim 6**, the terms "data" on line 24 on page 45 and line 3 on page 46 should be replaced with – stream data --.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1, 4-7, and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Parry et al. (US 6,748,481 B1) in view of Paul Sheer's "Rute User's Tutorial and Exposition"

Regarding **claim 1**, Parry et al. discloses a stream data processing apparatus for performing multiple steps of processing for stream data, comprising: a transmitting end processing section for performing a process of one of the multiple steps of processing for data contained in the stream data, and transmitting the processed data (column 6, lines 61-64, with the "writer module"); a receiving end processing section for receiving data transmitted from the transmitting end processing section, and performing a process of a next one of the multiple steps of processing for the received data (column 6, lines 66-67, with the "reader module"); a control section for instructing a change of a subject of processing to the transmitting end processing section and the receiving end processing section (column 7, lines 64-66, where the user is able to control the buffer with commands and this inherently would require a user interface, this user interface interacts with the reader and writer modules as seen in column 8, lines 5-7 and this is equivalent to a control section where that can instruct a reader and writer for changing

the subject of processing); a data temporary storage section for temporarily storing the data transmitted from the transmitting end processing section (column 6, lines 64-65 with the "circular buffer"); and a connection management section for allowing the data transmitted from the transmitting end processing section to be received by the receiving end processing section by performing a data write and a data read for the data temporary storage section and the empty data storage section (column 8, lines 5-11, with the "Buffer IO Layer" synchronizing the reader and write and the buffer therefore allowing data to be streamed from transmitter to receiver), wherein, if a change of the subject of processing is instructed from the control section, the transmitting end processing section and the receiving end processing section output a transmitting end clear request and a receiving end clear request, respectively, to the connection management section (column 13, lines 15-33, where the user can request an event, and in order for the data not to be corrupted, the reader and writer can output requests such as "blocking the writer" (similar to a transmitting end clear request) or "blocking the reader" (similar to a receiving end clear request)), and the connection management section switches a write destination for the data transmitted from the transmitting end processing section and a read source of data to be received by the receiving end processing section depending on whether the connection management section is in a normal operation state, a receiving end clear wait state which exists after the transmitting end clear request is received, or a transmitting end clear wait state which exists after the receiving end clear request is received (column 8, line 54-column 9, line 10, where "one component is blocked until another component has completed the

operation necessary to remove the offending condition"). Parry et al. does not disclose an empty data storage section for erasing any data written thereto in response to a data write, and returning empty data in response to a data read. The general concept of an empty data storage device is well known in the art as illustrated by Sheer. Sheer discloses that UNIX "devices" can allow software direct access to hardware and using a null device where reading it returns no data and writing to it discards data (/dev/null is Section 18.4 on page 4). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Parry et al. with this null device as taught by Sheer in order to simply discard output from the stream as noted in Sheer's disclosure (/dev/null is Section 18.4 on page 4).

Regarding **claim 4**, Parry et al. and Sheer disclose the stream data processing apparatus according to claim 1 as described above, and Parry et al. further discloses the apparatus wherein the transmitting end processing section and the receiving end processing section output the transmitting end clear request and the receiving end clear request (column 13, lines 15-33, where the user can request an event, and in order for the data not to be corrupted, the reader and writer can output requests such as "blocking the writer" (similar to a transmitting end clear request) or "blocking the reader" (similar to a receiving end clear request)) and perform transmission and reception of data by using a data transmission/reception section which provides a accessing function to the connection management section (column 8, lines 5-11, with the "Buffer IO Layer" synchronizing the reader and write and the buffer therefore allowing data to be streamed from transmitter to receiver).

Regarding **claims 5 and 6**, Parry et al. and Sheer disclose the stream data processing apparatus according to claim 1 as described above, and Parry et al. further discloses the apparatus wherein the connection management section is structured to be capable of selecting, if the data transmitted from the transmitting end processing section as required by claim 5, or data to be received by the receiving end processing section as required by claim 6 cannot be written or read to/from the data temporary storage section, whether to perform a process of immediately notifying an error to the transmitting end processing section or receiving end processing section, or a process of waiting until it becomes possible to write/read data to/from the data temporary storage section and notifying to the transmitting/receiving end processing section a result of writing/reading data to/from the data temporary storage section (column 8 line 64 – column 9 line10, where the data cannot be read from or written to the buffer if the "blocks" are in place, and the reading and writing process must wait until the its possible to read or write data before it can happen. The "Writer Unblock Event" of column 9 line 52 and "Reader Unblock Event" of column 9 line 61 are ways to notify a result of the transmission that the data is available).

Regarding **claim 7**, Parry et al. and Sheer disclose the stream data processing apparatus according to claim 1 as described above, and Parry et al. further discloses the apparatus further comprising a data input section via which to input the stream data (column 6, lines 40-52).

Regarding **claim 9**, Parry et al. and Sheer disclose the stream data processing apparatus according to claim 1 as described above, and Parry et al. further discloses

the apparatus comprising a data output section for outputting a result of performing the multiple steps of processing for the stream data (column 6, lines 16-18).

4. **Claims 2-3, 8, and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Parry et al. (US 6,748,481 B1) and Paul Sheer's "Rute User's Tutorial and Exposition" as applied to claims 1, 4-7, and 9 above, and further in view of Barton et al. (US 6,233,389 B1).

Regarding **claim 2**, Parry et al. and Sheer disclose a stream data processing apparatus according to claim 1 as described above, and Parry et al. further discloses the apparatus wherein the connection management section is operable to: select the data temporary storage section as the write destination and the read source in the normal operation state (column 6, lines 59-67, where the circular buffer is equivalent to the data temporary storage section and it is read from and written to by the reader and writer). Parry et al. and Sheer do not disclose erasing the data stored in the data temporary storage section if the transmitting end clear request or the receiving end clear request is received in the normal operation state, selecting the empty data storage section as the read source in the receiving end clear wait state, and selecting the empty data storage section as the write destination in the transmitting end clear wait state. The general concept of erasing the temporary storage section in response to clear requests is well known in the art as illustrated by Barton et al. Barton et al. discloses a stream data processing apparatus that can clear the buffer in response to a request from the transmitter or receiver (column 8, lines 19-35, where the buffers are erased in response to a single event, which originates from an object that can receive stream data

such as the "sink" object). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Parry et al. and Sheer with erasing of the buffer in response to an erase request as taught by Barton et al. in order to verify data has been erased before writing new data as to increase data reliability and simply reset the buffers with a single command for easier channel switching as noted in Barton et al.'s disclosure in column 8, lines 35-38.

Regarding **claim 3**, Parry et al. and Sheer disclose a stream data processing apparatus according to claim 1 as described above, and Parry et al. further discloses the apparatus wherein the connection management section is operable to: select the data temporary storage section as the write destination and the read source in the normal operation state (column 6, lines 59-67, where the circular buffer is equivalent to the data temporary storage section and it is read from and written to by the reader and writer) and regard as old data any data that is stored in the data temporary storage section when the transmitting end clear request has been received, select as the write destination a region in the data temporary storage section where the old data is not stored, and select as the read source a region in the data temporary storage section where the old data is stored while the old data is present, and select the empty data storage section as the read source once the old data is no longer present (column 9, lines 4-7, where blocking data from being written to is equivalent as regarding data as old data, then finishing the data stream until all readers finish their task, and in column 9, lines 25-35, where the writers cannot store data in an area that is being read from, equivalent to old data storage being read). Parry et al. and Sheer do not disclose

erasing the data in the data temporary storage section if a clear request is received in a normal state by selecting the empty data storage as the write destination, or erasing old data from the temporary storage if a clear request is received in a receiving end clear wait state. The general concept of erasing the temporary storage section in response to clear requests is well known in the art as illustrated by Barton et al. Barton et al. discloses a stream data processing apparatus that can clear the buffer in response to a request from the transmitter or receiver (column 8, lines 19-35, where the buffers are erased in response to a single event, which originates from an object that can receive stream data such as the "sink" object). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Parry et al. and Sheer with erasing of the buffer in response to an erase request as taught by Barton et al. in order to verify data has been erased before writing new data as to increase data reliability and simply reset the buffers with a single command for easier channel switching as noted in Barton et al.'s disclosure in column 8, lines 35-38.

Regarding **claim 8**, Parry et al. and Sheer disclose the stream data processing apparatus of claim 7 as described above, but do not disclose using the data input section where it inputs the stream data from a removable recording medium. The general concept of using a removable recording medium to feed the input stream is well known in the art as illustrated by Barton et al. Barton et al. discloses a stream data processing apparatus that takes a VCR to feed the input module (Figure 13, Items 1307 and 1301). It would have been obvious to one of ordinary skill in the art to modify Parry et al. and Sheer with using removable recording mediums to source the stream as

taught by Barton et al. in order to add recording devices to the already in place list of possible input devices seen in Parry et al.'s disclosure in column 6, lines 50-52.

Regarding **claim 10**, Parry et al. and Sheer disclose the stream data processing apparatus of claim 9 as described above, and Barton et al. further discloses that the data output section outputs the stream data to a removable recording medium. The general concept of using a removable recording medium to output the data stream is well known in the art as illustrated by Barton et al. Barton et al. discloses a stream data processing apparatus that takes a VCR to store the output module's results (Figure 13, Items 1307 and 1303). It would have been obvious to one of ordinary skill in the art to modify Parry et al. and Sheer with using removable recording mediums to save the stream as taught by Barton et al. in order to add recording devices as a possibility of a rendering device to save stream content.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam S. Weintrop whose telephone number is 571-270-1604. The examiner can normally be reached on Monday through Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on 571-272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AW

2/8/07

FRANTZ JULES
SUPERVISORY PATENT EXAMINER